Hardware User Manual

Meta Quest 3S VR Headset

May 2026

Purpose of This Manual

This manual explains the basic hardware usage of the Meta Quest 3S VR headset supplied as part of the iXRLabs VR deployment. It covers device setup, charging, safe usage, boundary setup, Wi-Fi connection, cleaning, casting, storage, and basic troubleshooting.

This manual is intended for:

- Faculty members
- Lab coordinators
- IT/admin staff
- Student representatives assisting with VR lab usage

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Part A: Meta Quest 3S Hardware Setup

1. Device Components

Each Meta Quest 3S headset set generally includes:

Component	Purpose
Meta Quest 3S headset	Main VR device
Left controller	Used for interaction/navigation
Right controller	Used for interaction/navigation
Charging cable	Used to charge the headset
Power adapter	Used with the charging cable
Controller batteries	Used to power the controllers
Head strap	Used to secure headset on user's head
Facial interface	Cushion/interface between face and headset

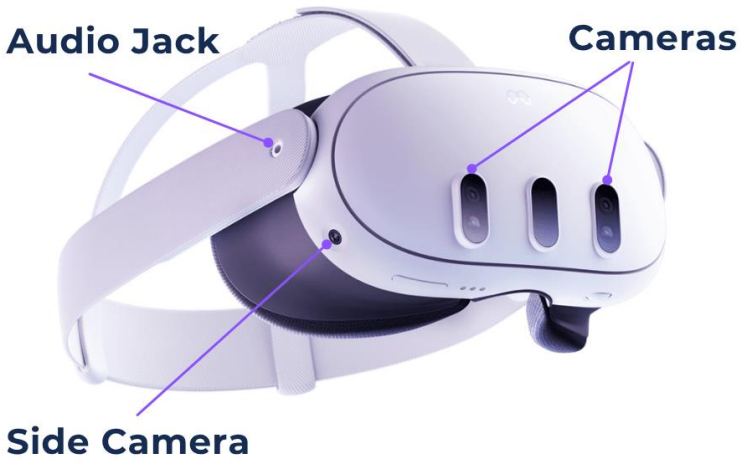
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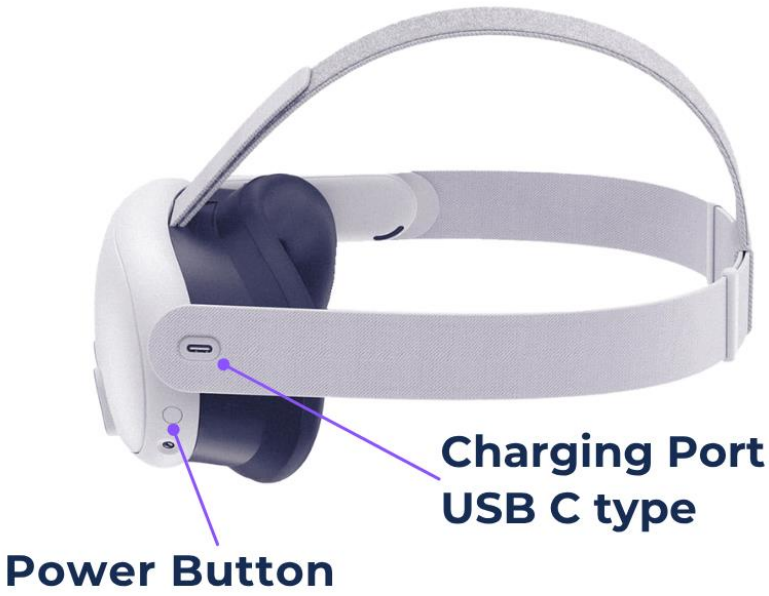
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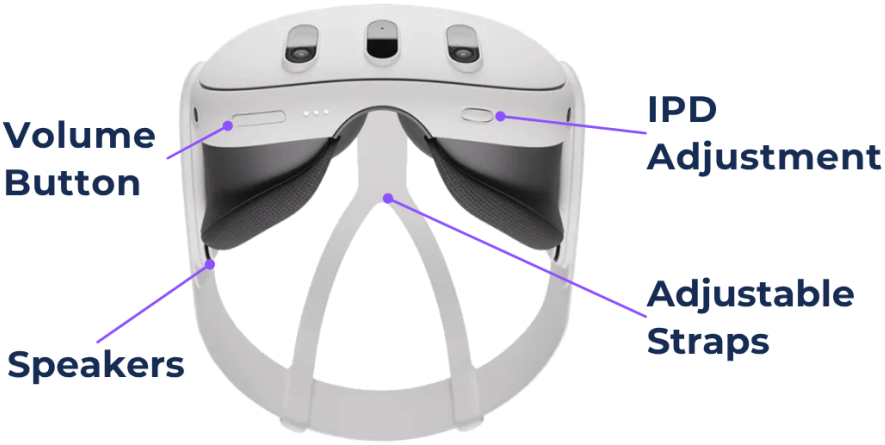
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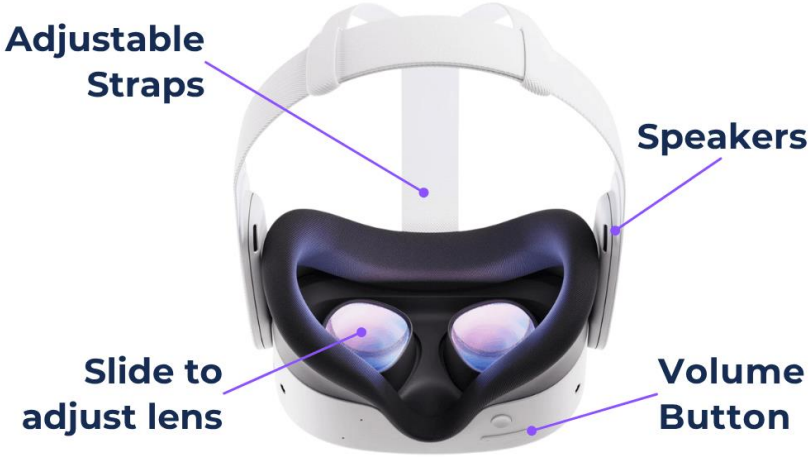
The Meta Quest 3S is a standalone virtual reality headset used to access immersive learning simulations and training modules. It does not require a separate computer for regular VR usage and comes with handheld controllers for interaction, navigation, and object manipulation inside the virtual environment.

The headset allows students and faculty to experience 3D learning content, explore virtual machines, participate in simulations, and view educational modules in an interactive format. It should be used in a safe, clear area and handled carefully after every session. **(visuals of the headsets may differ**)




Charging Port
USB C type
Power Button


Volume
Button
IPD
Adjustment
Adjustable
Straps
Speakers


Adjustable
Straps
Speakers
Slide to
adjust lens
Volume
Button

3. Charging the Headset

Before first use, fully charge the Meta Quest 3S headset using the provided adapter and cable. Meta's setup guidance recommends fully charging the headset before first use.

Steps

1. Connect the USB-C charging cable to the headset.
2. Plug the cable into the provided power adapter.
3. Connect the adapter to a wall socket.
4. Wait until the headset is adequately charged before setup or classroom use.
5. After charging, disconnect the headset and store the cable safely.

Charging Guidelines

- Charge the headset before every scheduled lab session.
- Do not pull the cable forcefully from the headset.
- Do not use damaged cables or adapters.
- Do not leave the headset charging unattended for very long periods.
- Keep the charging area dry and well ventilated.



Figure 1 Meta Quest 3s Charging

4. Turning the Headset On and Off

Turning On

1. Wear or hold the headset safely.
2. Press and hold the **Power button** for a few seconds.
3. Wait for the Meta logo/startup screen to appear.
4. Put on the headset and follow the on-screen instructions.

Meta's Quest setup guidance mentions pressing and holding the headset power button during initial setup.

Turning Off

1. Press and hold the **Power button**.
2. A power menu will appear inside the headset.
3. Select **Power Off**.
4. Wait until the headset fully shuts down.

Restarting

If the headset becomes slow, unresponsive, or an app does not open properly:

1. Press and hold the **Power button**.
2. Select **Restart**.
3. Wait for the device to restart.

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5. First-Time Setup Process

The initial setup of Meta Quest 3S requires the **Meta Horizon mobile app**. Meta's official setup instructions state that the Meta Horizon mobile app is required for initial pairing and setup, although it is not needed every time the headset is used.

Setup Requirements

Before setup, ensure:

- Headset is charged.
- Mobile phone is available.
- Meta Horizon mobile app is installed.
- Wi-Fi is available.
- Meta account credentials are available.
- Device is in a safe, open setup area.

Basic Setup Steps

1. Download the **Meta Horizon mobile app** on a smartphone from the Google Play Store or Apple App Store.

2. Open the Meta Horizon app.
3. Log in using the Meta account credentials.
4. Turn on the Meta Quest 3S headset.
5. Follow the on-screen pairing instructions.
6. Connect the headset to Wi-Fi.
7. Complete any required software updates.
8. Adjust headset fit and lenses for visual clarity.
9. Complete boundary setup.
10. Confirm that the headset is ready for use.

For iXRLabs deployments, the Meta account credentials may already be created and will be shared separately in the Credentials Document.

https://www.meta.com/en-gb/help/quest/1533601880924368/

6. Creating and accessing a Meta Account

!!!Ensure the Meta account is created using a date of birth that makes the account holder 18 years of age or older.

A Meta account is required to use Meta Quest devices and manage device access. Meta states that users can create a Meta account to log into Meta Quest devices and manage purchased content.

Creating a Meta Account

A Meta account can be created using:

- Email address
- Facebook account
- Instagram account

For institutional deployments, iXRLabs recommends creating one dedicated email ID for each Meta Quest 3S headset (One Email ID = One Device). Do not use personal faculty or student email IDs for device management. This simplifies device administration, troubleshooting, and credential management.

Basic Creation Steps

1. Open the Meta Horizon mobile app or Meta account page.
2. Select **Create Account**.

3. Use the designated email address.

(Small note: Assign one Meta Account to one headset only. Maintain a record of the corresponding email ID, Meta Account credentials, headset serial number, and asset ID in the institution's device register.)

4. Enter the required details.
5. Verify the account using the email verification code.
6. Complete the Meta Horizon profile setup if prompted.
7. Use this account to pair the headset.

Meta's official setup page for Quest 3 and 3S says setup is done by downloading the Meta Horizon mobile app and wirelessly connecting the headset and phone.

Or the setup page can be accessed at the below link:

https://www.meta.com/en-gb/help/quest/1336626146870772/

Accessing the Meta Account

To access or manage the account:

1. Open the Meta Horizon mobile app.
2. Log in with the assigned credentials.
3. Go to device/account settings as required.
4. Do not change account details unless authorised.

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7. Connecting the Headset to Wi-Fi

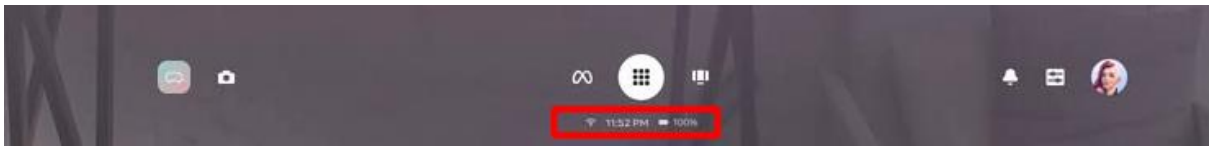
Wi-Fi is required for setup, updates, casting, and some account-related functions.

Steps

1. Wear the headset.
2. Open the universal menu.
3. Go to **Quick Settings**.
4. Select **Wi-Fi**.
5. Choose the institution's Wi-Fi network.
6. Enter the Wi-Fi password.
7. Confirm connection.

- Use a stable Wi-Fi network.
- For casting, the headset and computer/display device should be on the same Wi-Fi network. Meta's casting guidance specifically requires the phone, computer, and headset to be on the same Wi-Fi network, and on the same frequency band if the router supports dual band.

- Avoid using unstable mobile hotspots for classroom sessions.
- Inform iXRLabs support if institutional firewall restrictions block setup, updates, or casting.

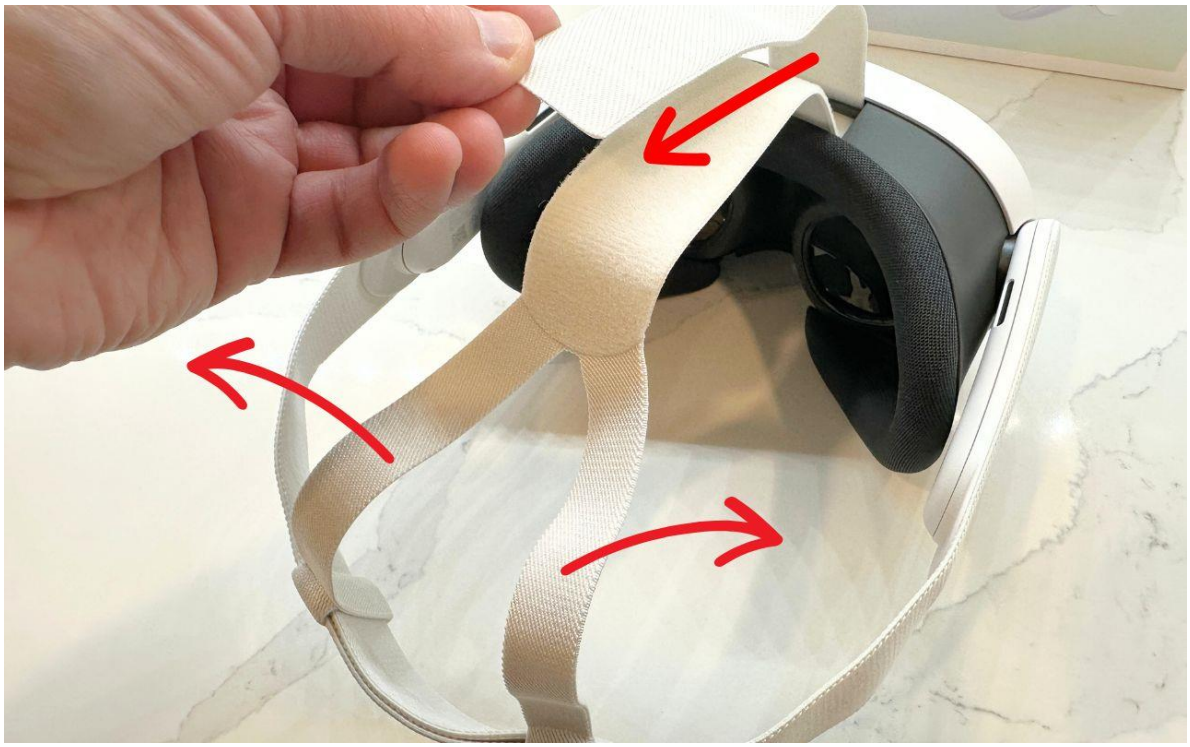


Part B: Wearing, Safety, and Boundary Setup

8. Wearing the Headset

Steps

1. Hold the headset with both hands.
2. Place the facial interface gently against the face.
3. Pull the strap over the head.
4. Adjust the strap so the headset feels secure but not too tight.



5. Adjust the lens position until the view is clear.

6. Hold controllers using the wrist straps.

Comfort Guidelines

- The headset should not press painfully on the face.
- Adjust the strap before starting the VR module.
- If the image is blurry, adjust headset position and lens spacing.
- Remove the headset immediately if the user feels dizzy, uncomfortable, or disoriented.

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9. Minimum Safe Area

For institutional usage, choose a clear and supervised area.

Recommended Area



Usage Type	Suggested Setup
Seated usage	Chair with clear space around user
Standing stationary usage	Clear floor area around user
Room-scale / movement usage	Larger open area with no obstacles

Meta's VR safety guidance recommends indoor use, a clear activity space, a buffer around the activity space, regular breaks, and use of the boundary system where available.

Remove These From the Play Area

- Chairs not being used

- Tables
- Bags
- Loose cables
- Sharp objects
- Glass items
- Stairs or raised platforms
- Other students standing too close

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10. Seated and Standing Usage

Seated Usage

Use seated mode when:

- The module does not require movement.
- The user is new to VR.
- The classroom space is limited.
- The user may feel dizzy or uncomfortable.

Standing Usage

Use standing mode when:

- The module requires looking around freely.
- The user needs to inspect objects from different angles.
- A faculty member or lab assistant is supervising.

General Rule

For first-time users and student rotations, seated usage is safer and easier to manage.

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11. Guardian / Boundary Setup

The Meta Quest boundary system helps create virtual walls that appear when the user gets close to the edge of the play area. Meta describes Boundary/Guardian as a built-in safety feature for defining the VR play area.

Steps

1. Wear the headset.
2. Open **Quick Settings**.
3. Go to **Boundary** or follow the on-screen boundary prompt.

4. Choose the appropriate mode:
    - **Stationary boundary** for seated or standing-in-place use.
    - **Room-scale boundary** for movement-based use.
5. Follow on-screen instructions to mark the safe area.
6. Confirm the boundary before starting the module.

Boundary Guidelines

- Set boundary before student sessions.
- Do not ignore boundary warnings.
- Reset the boundary if the room layout changes.
- Do not allow multiple students to move in the same small area while wearing headsets.

https://www.meta.com/en-gb/help/quest/463504908043519/



12. Safety Guidelines for Classroom/Lab Use

Before Use

- Check that the headset is charged.
- Check that the controllers are working.
- Confirm the play area is clear.
- Explain basic controls to the student.
- Ensure the student is wearing the wrist straps.

During Use

- Supervise first-time users.
- Do not let users run, jump, or move quickly.
- Maintain distance between students.
- Ask users to stop if they feel dizzy or uncomfortable.
- Keep the instructor/lab assistant nearby.

After Use

- Remove the headset carefully.
- Clean the face interface as per hygiene protocol.
- Return controllers and headset to the storage/charging area.
- Record any hardware issue.

Meta advises users to review health and safety information, follow on-screen warnings, use boundary features, and take regular breaks.

https://www.meta.com/in/quest/safety-center/quest-3s/

Part C: Controllers

13. Controller Basics

Each headset comes with a left and right controller.

Common Controller Functions

Control	Use
Trigger button	Select/interact
Grip button	Grab objects
Joystick/thumbstick	Navigate/move depending on app
Meta button	Open universal menu / recenter view
Menu button	App/menu functions depending on module
Wrist strap	Prevents controller from falling

Controller Usage Guidelines

- Always wear the wrist strap.
- Hold the controller firmly but comfortably.
- Do not throw, hit, or drop controllers.
- Do not use controllers near walls or hard objects.

- Keep controllers paired with their assigned headset set.



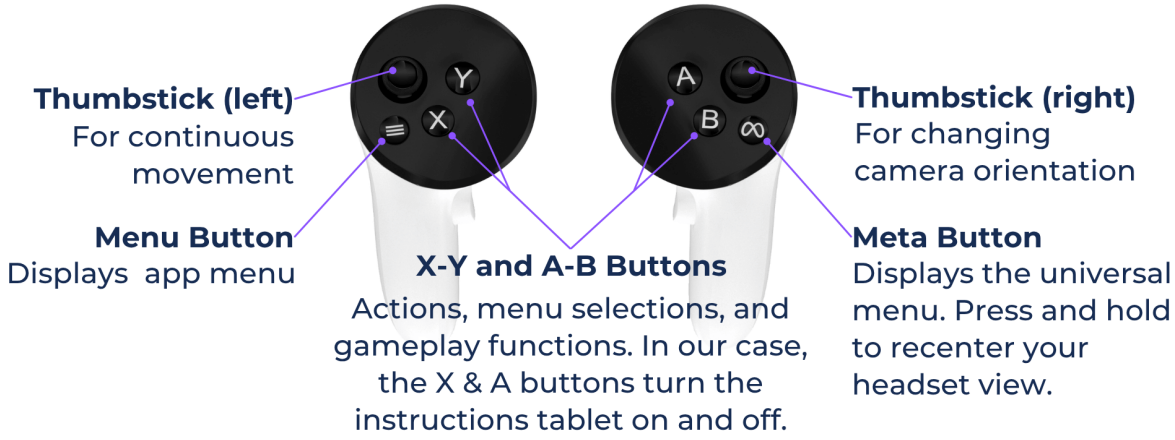
Trigger (Index Finger)

Primary interaction (Shoot/ Pressing the confirm button/ Interacting with text boxes).



Grip Button

Secondary interaction (on the side of the controller). Grab the objects or make a fist when using your virtual hands.



14. Controller Battery Replacement / Charging

Depending on the controller battery type supplied, the controllers may use replaceable or rechargeable batteries.

If Using Rechargeable Batteries

1. Remove the battery cover.
2. Take out the rechargeable battery.
3. Place it in the battery charger.
4. Charge fully before reuse.
5. Reinsert the battery in the correct polarity direction.

If Using Replaceable Batteries

1. Remove the battery cover.
2. Remove old battery.
3. Insert new battery with correct polarity.
4. Close the battery cover properly.

Battery Guidelines

- Use only compatible batteries.
- Do not mix old and new batteries.
- Do not insert batteries incorrectly.
- Keep spare charged batteries ready before classroom sessions.
- Store batteries safely when not in use.

Part D: Cleaning, Storage, and Handling

15. Cleaning the Lenses Safely

Lens Cleaning Steps

1. Use a clean, dry microfiber lens cloth.
2. Wipe the lenses gently in a circular motion.
3. Do not press hard on the lenses.
4. Do not use liquid cleaners on the lenses.
5. Do not use alcohol, sanitizer, rough cloth, tissue paper, or abrasive material.

Meta's facial interface care guidance specifically says not to use alcohol or chemical cleansers on the facial interface, and general lens care should be done cautiously with dry microfiber material.

Important

Never expose the headset lenses to direct sunlight. Meta's Quest 3S setup guidance warns users to avoid direct sunlight on the headset and lenses.

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16. Cleaning the Facial Interface and Head Strap

The facial interface touches the user's face and should be cleaned regularly, especially when multiple students use the same device.

Basic Cleaning

1. Remove visible dust or sweat using a dry microfiber cloth.
2. For deeper cleaning, clean gently with cool water and mild liquid detergent if appropriate for the supplied interface.
3. Do not submerge the facial interface.
4. Do not use alcohol or chemical cleansers.
5. Let the interface air dry fully before reinstalling or using the headset.

Meta's guidance for Quest facial interface care says to use a dry microfiber cloth for debris, hand wash with cool water and mild liquid detergent, avoid submerging, avoid chemical cleansers and alcohol, and let it fully air dry before reinstalling.

Head Strap Cleaning

- Wipe the strap with a dry or slightly damp cloth.
- Do not soak the strap.
- Allow it to dry before storage.
- Replace/repair if the strap is damaged.

17. Storage After Use

After each session:

1. Turn off or put the headset in standby as per lab SOP.
2. Clean the facial interface.
3. Check that controllers are returned.
4. Place headset and controllers in the designated case/storage area.
5. Keep lenses away from sunlight.
6. Keep the device away from heat, moisture, dust, and physical impact.
7. Put batteries for charging if required.

Meta advises keeping the headset away from direct sunlight, extremely hot places such as cars, and storing it securely when not in use.

18. Handling During Student Rotation

For classroom sessions:

1. Assign one faculty/lab assistant to supervise device handling.
2. Give the headset to one student at a time.
3. Help the student wear and adjust the headset.
4. Ensure wrist straps are worn.
5. Clean the facial interface before the next user.
6. Check for discomfort or motion sickness.
7. Maintain a device usage log if required.

Suggested Student Rotation Flow

Step	Action
1	Faculty introduces module
2	Student wears headset
3	Student completes VR activity
4	Faculty/lab assistant removes headset safely
5	Device is cleaned

Step	Action
6	Next student begins

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19. What Not To Do

Do not:

- Use alcohol or sanitizer on the lenses.
- Use rough cloth, tissue, or abrasive material on lenses.
- Keep lenses in direct sunlight.
- Leave headset in a hot car or near heat sources.
- Leave charging unattended for very long periods.
- Pull charging cable forcefully.
- Drop, throw, or mishandle controllers.
- Install unrelated apps without approval.
- Change Meta account settings without approval.
- Factory reset the device without permission from the lab coordinator or iXRLabs.
- Share Meta credentials publicly with students.
- Use the device if the strap, controller, cable, or lens is damaged.

Part E: Factory Reset

20. Factory Reset Warning

A factory reset removes device data and returns the headset to factory condition. It should only be done when instructed by the lab coordinator or iXRLabs support.

Meta's official factory reset process states that the headset should be turned off, then the power and volume-down buttons should be held together until the boot screen appears.

Factory Reset Using Headset Buttons

1. Turn off the headset.
2. Press and hold the **Power button** and **Volume Down (-) button** together.
3. Wait until the boot screen appears.
4. Use volume buttons to select **Factory Reset**.
5. Press the power button to confirm.

6. Confirm reset if prompted.

When to Use Factory Reset

Only use factory reset if:

- iXRLabs support instructs you to do so.
- Device cannot be recovered through normal restart.
- Device is being reassigned or reconfigured.

Do Not Factory Reset If

- App is temporarily frozen.
- Casting is not working.
- Wi-Fi is disconnected.
- Controller is not detected.

For these, use basic troubleshooting first.

Part F: Casting Manual — Headset to PC / Display

21. Purpose of Casting

Casting allows the faculty member or lab coordinator to display the headset view on a laptop, PC, projector, smartboard, or external display. This is useful for:

- Classroom demonstrations
- Faculty-guided VR sessions
- Helping students navigate inside the headset
- Showing VR content to the full class
- Troubleshooting what the user is seeing

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22. Before Casting

Ensure:

- Headset is turned on.
- Headset and PC/laptop are connected to the same Wi-Fi network.
- If Wi-Fi has 2.4 GHz and 5 GHz bands, both devices should ideally be on the same frequency band.
- The browser/device is logged into the same Meta account if using Meta web casting.
- Internet connection is stable.

- Browser permissions are allowed.

Meta's casting guidance states that the phone, computer, and headset should be on the same Wi-Fi network, and if using dual-band Wi-Fi, they should be on the same frequency.

https://www.meta.com/en-gb/help/quest/192719842695017/

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23. Casting to a Browser / PC

On the PC/Laptop

1. Open a compatible browser.
2. Go to Meta's casting page.
3. Log in with the same Meta account used on the headset.
4. Keep the browser open.

Meta's casting help states that casting can be started from the headset by opening the navigator, selecting quick controls, selecting Cast, choosing Mobile/Web/nearby device, and following the on-screen instructions.

Inside the Headset

1. Press the **Meta button** on the right controller.
2. Open the universal menu / navigator.
3. Go to **Quick Controls**.
4. Select **Cast**.
5. Choose **Web** or the available PC/display device.
6. Select **Next**.
7. Confirm that the headset view appears on the PC/laptop.

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24. Casting Using Meta Horizon Link App / Installed Casting App

If a casting app is installed on the PC/laptop:

1. Open the casting app on the PC.
2. Ensure the PC and headset are on the same Wi-Fi.
3. Wear the headset.
4. Open **Cast** from Quick Controls.
5. Select the available device/app.
6. Start casting.
7. Connect the PC/laptop to a projector or display if required.

Meta's casting documentation also includes casting to the Meta Horizon Link app from a computer, where the headset appears in the devices list and casting can be started.

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25. How to Stop Casting

1. Open the universal menu inside the headset.
2. Go to **Casting**.
3. Select **Stop Casting**.
4. Confirm that the PC/display no longer shows the headset view.

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26. Faculty Use During Classroom Demonstration

Recommended flow:

1. Connect laptop to projector/smartboard.
2. Connect headset and laptop to the same Wi-Fi.
3. Start casting from headset to laptop.
4. Open the iXRLabs module.
5. One faculty member/student uses the headset.
6. The rest of the class watches the casted view.
7. Faculty pauses and explains key moments during the simulation.

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27. Casting Troubleshooting

Issue	Possible Cause	First Action
Device not appearing	PC and headset on different networks	Connect both to same Wi-Fi
Device not appearing	Different Wi-Fi bands	Put both on same 2.4 GHz or 5 GHz band
Browser casting not working	Not logged into same Meta account	Log into same Meta account
Laggy casting	Weak Wi-Fi	Move closer to router or use stronger Wi-Fi
Black screen	Browser/app issue	Refresh browser or restart casting
No audio	PC/browser volume muted	Check headset, browser, and PC volume

Casting disconnects	Network instability	Restart router/headset and try again
Browser permission issue	Browser blocked permissions	Allow browser permissions / try another browser

Meta's troubleshooting guidance for browser casting specifically mentions ensuring that the browser is logged into the same Meta account.

Part G: Quick Hardware Troubleshooting Sheet

This section can be printed separately as a one-page quick reference.

Meta Quest 3S Quick Help Sheet

Issue	First Action
Headset not turning on	Charge for 30 minutes, then long-press the power button
Headset frozen	Hold power button and restart
App not opening	Restart headset
Controller not detected	Check battery / replace or recharge battery / reconnect controller
Casting not working	Ensure PC and headset are on same Wi-Fi
Casting device not appearing	Check same Meta account and same Wi-Fi band
Laggy casting	Move closer to router / use stronger Wi-Fi
Black screen during casting	Stop casting and start again
No audio	Check headset volume, PC volume, browser/app audio
Blurry visuals	Adjust headset fit and lens spacing
Boundary/Guardian issue	Reset boundary from settings
Wi-Fi not connecting	Re-enter Wi-Fi password / restart headset
Login issue	Check credentials / contact iXRLabs
Headset overheating	Stop use, power off, allow device to cool
Controller buttons not responding	Restart headset and check controller battery
User feels dizzy	Stop session immediately and let user rest

Part H: Support and Escalation

For hardware or setup issues, please contact the designated iXRLabs support contact.

While reporting an issue, share:

- Institution name
- Device asset ID
- Headset serial number
- Issue description
- Photo/video if possible
- Date and time of issue
- Steps already tried

Disclaimer

This manual has been prepared for basic institutional use of the Meta Quest 3S headset supplied as part of the iXRLabs VR Lab deployment. It is intended to help faculty, lab coordinators, IT/admin staff, and designated student representatives understand safe handling, setup, basic operation, casting, storage, cleaning, and troubleshooting procedures.

The information provided in this manual is for guidance only. Users should always follow official Meta safety instructions, on-screen device warnings, institutional IT policies, and iXRLabs deployment guidelines. iXRLabs is not responsible for damage, injury, loss of data, account misuse, unauthorised app installation, improper handling, or use outside the recommended safety and operational guidelines.

Meta Quest, Meta Horizon, and related product names are trademarks of Meta Platforms, Inc. iXRLabs does not claim ownership of Meta hardware, software, trademarks, or official documentation.

Important Notes

Meta account credentials, iXRLabs software credentials, licence keys, and device-specific login details are shared separately through the official credentials document.

Do not share device credentials publicly with students or unauthorised users.

Do not factory reset, modify account settings, install unrelated applications, or remove installed iXRLabs software without approval from the designated lab coordinator or iXRLabs support team.

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